TWO NEW SPECIES OF THRIPS FROM CALIFORNIA

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Hoplandrothrips sycamorensis Mason, new species

Female. Length, 2.11 mm. Color uniformly dark brown, with a very little scattered red hypodermal pigmentation; tarsi, fore tibiæ, and bases of antennal segments III to VI light brown.

Head nearly 1.5 times as long as broad, widest immediately behind the eyes and converging slightly posteriorly; from overhanging about half of the first antennal segment. Cheeks nearly straight and somewhat roughened with small warts, and having several very short blunt spines. Postocular bristles short, dilated, and truncate at tip. Ocelli small, circular and equidistant, placed between the eyes; anterior one near the end of the vertex and the posterior pair about opposite the center of the eyes. Eyes small, occupying little more than one-fourth of the length of the head. Mouth-cone long, almost reaching the mesothorax and running to a sharp point. Antenna eight-segmented and one and one-fourth times the length of the head. First two segments concolorous with the head, III light yellow with a little brown shading near the tip, IV to VI yellow at base, shading into brown, VII and VIII light brown, VII having a very little yellow at base. Segment I a short truncated cone, II cup-shaped with a rather pronounced pedicle, III wedge-shaped with rounded apex, IV and V ovate with narrowed pedicle, IV being considerably wider than V, VI fusiform, VII truncate ovate, VIII conical with a blunt tip.

Prothorax little more than half as long as the head and about twice as wide as long, sides diverging rapidly posteriorly; one rather prominent but short spine on the anterior margin and a row of five spines on the posterior margin, the first of them being especially heavy. All spines dilated and truncate at tip.

Pterothorax slightly wider than the prothorax and narrowed somewhat posteriorly. Wings rather short and colorless, except for a little yellow shading at the extreme base; three blunt spines at base of fore wings, five to nine (usually eight) interlocated hairs on posterior margin. Legs rather long, the fore femora being neavy and thickened; fore tibiæ and extreme tips of others light yellow. Fore tarsi armed with a short, stout tooth near base.

Abdomen large, tapering gradually after the fourth segment and rounded abruptly from the seventh; provided with numerous blunt

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colorless bristles, the posterior ones and those at the end of the tube being nearly as long as the tube. Tube half as long as the head and tapering gradually.

Length 34 54 67 72 59 49 46 28 microns 39 32 29 Width 43 35 38 25 16 microns

Male slightly smaller and with more red pigmentation; otherwise similar in appearance. Length, 2.03 mm. As with the females, the fore tarsi are provided with a stout tooth and in addition they have a smaller tooth on the inside of the fore tibiæ near the base and also a very small one opposite this on the femur.

The larvæ are light yellow to colorless, and live under the bark of the host. Winter is passed in the egg stage, under the bark.

Described from five females and one male taken under bark or on the leaves of sycamore trees at Springville, California. Type in author's collection.

This species is close to *H. xanthopus* Hood, but differs in many characters, including larger size, darker color, absence of most of the red pigmentation, shorter postocular and prothoracic bristles, etc.

Zygothrips californicus Mason, new species

Length, 1.35 mm. Color brown to dark brown or fuscous; legs concolorous with the body; antennal segment III yellow, IV to VIII light brown.

Head slightly longer than broad, rounded in front and slightly diverging posteriorly, reaching the widest part about three-fourths of the way back, then narrowing slightly to the posterior end. Cheeks smooth. Postocular bristles very small and blunt. Eyes rather small, occupying about one-fourth of the length of the head and one-third of its width. Ocelli rather large, the posterior pair being opposite the anterior third of the eyes and the anterior one being directed forward. Mouth-cone contracted, reaching about two-thirds across the pronotum, bluntly rounded. Antenna eight-segmented, one and one-half times the length of the head; bristles short but sense-cones rather conspicuous. First two segments concolorous with the head; III light yellow; IV to VI brownish-yellow to light brown; VII and VIII light brown. Segment I a short truncated cone; II ovate; III clavate with a broad base; IV ovate, tapering abruptly to a narrow base; V barrel-shaped; VI cylindrical, with nar-

rowed base; VII oblong and slightly tapered at tip; VIII conical, tapering gradually to a rather sharp point.

Prothorax about three-fourths as long as the head and nearly twice as wide as long, the sides gently diverging and broadly rounded at the posterior end; prothoracic bristles short and blunt.

Pterothorax slightly wider than the prothorax, sides nearly straight and converging slightly posteriorly. Wings large and clear, with long membrane extending to or slightly beyond the end of the tube. Fore pair somewhat constricted in the middle and with nine to eleven interlocated hairs on the posterior border. Legs long, femora enlarged, the fore femora especially being much thickened; fore tarsi unarmed.

Abdomen rather heavy, width about four-ninths of the length, and tapering rather abruptly from the fifth segment to the tube. Tube less than half the length of the head; terminal bristles little more than half the length of the tube.

Measurements: Head, length 0.229 mm., width 0.209 mm.; prothorax, length 0.152 mm., width 0.276 mm.; pterothorax, width 0.304 mm.; abdomen, greatest width 0.342 mm.; tube, length 0.098 mm., width at base 0.057 mm., width at apex 0.033 mm.; antenna, total length 0.328 mm.

Segment	1	2	3	4	5	6	7	8	
Length	25	41	49	56	49	41	41	21 mi	crons
Width	32	29	29	37	29	25	18	10 mi	crons

Described from a single female taken on an orange tree at Orange Cove, California. Type in author's collection.

Close to Z. harti Hood, but differing in the following characters: Larger size, antennal segments IV to VIII lighter colored, prothoracic bristles blunt, clear fore wings and with 9 to 11 interlocated hairs, contracted mouth cone, and tube less than half the length of the head.

NOTES ON PARASITES AT SATICOY, CALIFORNIA, DURING THE YEAR 1925

BY STANLEY E. FLANDERS Saticoy, California

On February 28 a braconid of the genus *Monogonogastra* was reared from a walnut twig which contained the dead larvæ of *Polycaon confertus* Lec. During April numbers of these dusky-winged, red-bodied braconids were observed about the walnut leaves. One individual was seen December 4.

Through June and July a number of the metallic-blue ichneu-